- 1. (currently amended): An aqueous, storage-stable, non-sedimenting suspension <u>wherein the</u> particle size of the solid material in the suspension is less than 12 μm comprising
- (a) at least one mono- or bis-acylphosphine oxide of formula I

$$R_{5} = \begin{pmatrix} R_{3} & O & O \\ & || & || \\ & C - P - R_{2} \\ & R_{1} \end{pmatrix}$$
 (I), wherein

 $R_1$  is  $C_1$ - $C_{20}$ alkyl;  $C_2$ - $C_{20}$ alkyl interrupted by one or more O atoms;  $C_1$ - $C_{12}$ alkoxy; phenyl- $C_1$ - $C_4$ alkyl; or phenyl that is unsubstituted or substituted by  $C_1$ - $C_{20}$ alkyl,  $C_1$ - $C_{12}$ alkoxy, halogen, cyclopentyl, cyclohexyl,  $C_2$ - $C_{12}$ alkenyl,  $C_2$ - $C_{18}$ alkyl interrupted by one or more O atoms, and/or by phenyl- $C_1$ - $C_4$ alkyl; or  $R_1$  is biphenylyl;

$$R_2$$
 is the radical  $R_5$  or has one of the meanings given for  $R_1$ ;

 $R_3$  and  $R_4$  are each independently of the other  $C_1$ - $C_{12}$ alkyl,  $C_1$ - $C_{12}$ alkoxy or halogen; and  $R_5$  is hydrogen,  $C_1$ - $C_{12}$ alkyl,  $C_1$ - $C_{12}$ alkoxy or halogen;

- (b) at least one dispersant;
- (c) water; and, optionally,
- (d) further additives.
- 2. (original): An aqueous suspension according to claim 1, comprising as component (a) a compound of formula I, wherein

 $R_1$  is  $C_1$ - $C_{20}$ alkyl;  $C_1$ - $C_4$ alkoxy; or phenyl that is unsubstituted or substituted by  $C_1$ - $C_{12}$ alkyl,  $C_1$ - $C_{12}$ alkoxy and/or by halogen;

$$R_2$$
 is the radical  $R_5$  or has one of the meanings given for  $R_1$ ;

 $\mathbf{R}_3$  and  $\mathbf{R}_4$  are each independently of the other  $C_1$ - $C_4$ alkyl or  $C_1$ - $C_4$ alkoxy; and

 $\mathbf{R}_5$  is hydrogen,  $C_1$ - $C_{12}$ alkyl or  $C_1$ - $C_{12}$ alkoxy.

- 3. (original): An aqueous suspension according to claim 1, comprising as component (a) bis(2,6-dimethoxybenzoyl)-2,4,4-trimethylpentylphosphine oxide; bis(2,4,6-trimethylbenzoyl)-2,4-dipentyloxyphenylphosphine oxide; bis(2,4,6-trimethylbenzoyl)phenylphosphine oxide; or
- 2,4,6-trimethylbenzoyldiphenylphosphine oxide.
- 4. (currently amended): An aqueous suspension according to claim 1, wherein the particle size of the solid or solids in the suspension is from 0.1  $\mu$ m to 12  $\mu$ m, especially from 0.1  $\mu$ m to 4  $\mu$ m.
- 5. (original): An aqueous suspension according to claim 1, comprising from 10 to 80 parts of component (a);from 1 to 40 parts of component (b); and a sufficient number of parts of component (c) for the total composition to amount to 100 parts.
- 6. (currently amended): An aqueous suspension according to claim 1, comprising as component (b) polymers based on maleic acid anhydride, polyvinyl alcohol or modified polyacrylates, especially the alkali salts of carboxylic acid copolymers or polyvinyl alcohol.
- 7. (original): An aqueous suspension according to claim 1, comprising
- (a) a compound of formula I, wherein  $R_1$  is phenyl or  $C_1$ - $C_{12}$ alkyl;  $R_2$  is  $R_5$  ;  $R_3$  and  $R_4$

R₄ are C₁-C₄alkyl or C₁-C₄alkoxy; and R₅ is hydrogen or C₁-C₄alkyl; and
(b) as dispersant, an alkali salt of a carboxylic acid polymer, polyvinyl alcohol or a modified polyacrylate.

8. (original): An aqueous suspension according to claim 1, comprising as additional component (d) at least one biocide.

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- 9. (original): An aqueous suspension according to claim 1, comprising as additional component (d) at least one UV absorber and/or a sterically hindered amine.
- 10. (original): A process for the preparation of an aqueous, storage-stable, non-sedimenting photoinitiator suspension comprising
  - (a) at least one mono- or bis-acylphosphine oxide of formula I  $R_5$   $R_4$   $R_5$   $R_4$   $R_5$   $R_4$   $R_5$   $R_6$   $R_6$   $R_6$   $R_6$   $R_6$   $R_6$   $R_6$   $R_6$   $R_6$

wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in claim 1,

- (b) at least one dispersant,
- (c) water, and, optionally,
- (d) further additives

by

- (1) suspending components (a), (b) and (c) and, optionally, (d), by stirring;
- (2) coarse-grinding the resulting mixture to a particle size of the solid material in the suspension of approximately  $60 \mu m$ ; and
- (3) fine-grinding the mixture by one or more grinding operations to a particle size of the solid material in the suspension of less than 12  $\mu$ m.
- 11. (original): A photopolymerisable composition comprising
- (A) at least one ethylenically unsaturated photopolymerisable compound and
- (B) as photoinitiator, a suspension according to claim 1.
- 12. (original): A photopolymerisable composition according to claim 11, wherein component (A) comprises at least one ethylenically unsaturated photopolymerisable compound dissolved or emulsified in water.
- 13. (currently amended): A photopolymerisable composition according to claim 11, comprising in addition to components (A) and (B) further additives (C), especially selected from the group consisting of UV absorbers, sterically hindered amines, biocides and/or pigments.

- 14. (original): A process for the photopolymerisation of compounds having ethylenically unsaturated double bonds, which comprises irradiating a composition according to claim 11 with light in the range from 200 to 600 nm.
- 15. (currently amended): A process according to claim 14 for the production of surface coatings, printing inks, screen-printing inks, offset-printing inks, flexographic-printing inks, resist materials or image-recording material, especially for the production of corresponding aqueous systems.

16-17. (canceled).

18. (original): A coated substrate that is coated on at least one surface with a composition according to claim 11.

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